Amendments to the Claims:

The listing of claims below will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of driving a switch mode power supply in accordance with a duty cycle determining a power output of the power supply, using a driving circuit having a first transistor operative during a first portion of the duty cycle for coupling a circuit node of the switch mode power supply to an operating potential and a second transistor operative during a second portion of duty cycle for coupling the circuit node of the switch mode power supply to a reference potential, the method comprising:

driving at least one of the first and second transistors with a pulse having a duration~~ing~~ that is ~~at least several times~~ less than a duration of a corresponding one of the first portion of the duty cycle and the second portion of the duty cycle; and

charging a parasitic capacitance of a power switching transistor during driving the one transistor of the first and second transistors~~;~~,

wherein the charge transferred to the parasitic capacitance maintain~~sing~~ the ~~one transistor~~ power switching transistor in an on condition for the duration of the corresponding one of the first portion of the duty cycle and the second portion of the duty cycle.

2. (Currently Amended) The method of Claim 1, further comprising:

driving an other of the first and second transistors with a pulse having a duration~~ing~~ that is ~~at least several times~~ less than a duration of a corresponding one of the first portion of the duty cycle and the second portion of the duty cycle.

3. (Original) A method of driving a synchronous rectification buck converter having a main transistor coupled to a power supply input and to an output filter and a first drive circuit for driving the main transistor, and having a clamping transistor coupled to the main transistor and a second drive circuit for driving the clamping transistor, the method comprising:

to turn on the main transistor, applying an on pulse to a gate electrode of one transistor within the first drive circuit and charging a parasitic capacitance of the one transistor; and

relying on charge held on the parasitic capacitance of the one transistor to maintain the main transistor on for a duration at least several times a duration of said on pulse.

4. (Original) The method of Claim 3, further comprising:

to turn off the main transistor, applying an off pulse to a gate electrode of an other transistor within the first drive circuit.

5. (Original) The method of Claim 4, further comprising:

to turn on the clamping transistor, applying a different on pulse to a gate electrode of a charge source transistor within the second drive circuit.

6. (Original) The method of Claim 5, further comprising:

to turn off the clamping transistor, applying a different off pulse to a gate electrode of a charge removal transistor within the second drive circuit.

7. (Currently Amended) An RF amplification circuit having a phase path and a magnitude path, comprising:

an amplifier having at least a final stage, the amplifier having an RF input coupled to the phase path; and

a switch mode power supply coupled to ~~an operational voltage and to~~ a power supply input terminal of the amplifier, the switch mode power supply including a transistor switch, a driver circuit for driving the transistor switch, and a controller, the controller causing the driver circuit to operate in a charge transfer mode in which a pulse of short duration relative to a duty cycle of the switch mode power supply is used to turn on the transistor switch.

8. (Currently Amended) A method of amplifying an RF input signal using an amplification circuit including an amplifier having at least a final stage and a switch mode power supply having a transistor switch, a driver circuit and a controller, the method comprising:

applying a constant-envelope phase or frequency modulated RF input signal to an RF input terminal of the amplifier; and

producing an amplitude-modulated RF output signal at an output terminal of the amplifier by controlling the driver circuit of the switch mode power supply in a charge transfer mode to convert an operational voltage to a varying power supply voltage and applying the power supply voltage to a power supply terminal of the amplifier;

wherein a pulse of short duration relative to a duty cycle of the switch mode power supply is used to turn on the transistor switch.

9. (Currently Amended) A switch mode power supply comprising:

a transistor switch;

a driver circuit for driving the transistor switch; and

a controller, the controller causing the driver circuit to operate in a charge transfer mode in which a pulse of short duration relative to a duty cycle of the switch mode power supply is used to turn on the transistor switch.

10. (Currently Amended) A method of operating a switch mode power supply having a transistor switch, a driver circuit for driving the transistor switch, and a controller, the method comprising:

controlling the driver circuit to operate in a charge transfer mode in which a pulse of short duration relative to a duty cycle of the switch mode power supply is used to turn on the transistor switch; and

during a substantial portion of the duty cycle of the switch mode power supply, placing the driver circuit in a high-output-impedance state.

11. (New) The method of Claim 1 wherein the charge transferred to the parasitic capacitance is less than a maximum charge to which the parasitic capacitance can be charged when configured in the switch mode power supply.

12. (New) The method of Claim 1 wherein the duration of the driving pulse is set so that the amount of charge transferred to the parasitic capacitance is just sufficient to maintain the power switching transistor in the on condition for the duration of the corresponding one of the first portion of the duty cycle and the second portion of the duty cycle.